1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

ripening); most of the larger muscles were already gnawed away, leaving loose ends of fiber and strings of tendon clinging to the bone, the condition being such that the remaining flesh might easily have been cut and scraped away by means of a knife; yet whenever a warrior or woman or youth hungered he or she took down the heavy joint, squatted or sat on the ground with back to one side of the doorway, held the mass at the height of the mouth, and gnawed, sucked, and swallowed, frequently tearing the tissue by twisting and backward jerks of the head, and not only masticating, but swallowing the free ends of tendons still attached to the bone. This process was varied only by seizing with the hands and tearing off a strip of flesh or skin already loosened by the teeth; and it was continued until the bones were practically clean, when they were wrenched apart by the stronger men in order that the cartilaginous cushions and epiphyses might be gnawed away. The only approach to cooking or carving was a parboiling of the foot, after the leg was wrenched off at the hock, until the hoof was sufficiently softened to be knocked off with the protolithic hupf[1] shown in plate XLIII, when half a dozen matrons and well-grown maidens gathered about to gnaw the gelatinous tissue (already softened by incipient decay as well as by the parboiling) investing the coffin bone. The entire procedure in this as in many other cases proclaimed the absence of knife-sense. The Caucasian huntsman does not have to think of his knife when game is to be bled or skinned or dissected; his habit-trained hand knows where to find the implement, how to seize it, and in most cases how to wield it advantageously; but the Seri hand possesses no such cunning, and uses the knife only clumsily and at second thought, if at all. The Seri huntsman, on the other hand, does not have to think of nails and teeth, for they are trained and coordinated by hereditary habit to spontaneously act in unison and with the utmost possible or needful vigor; while the Caucasian at least has completely lost the claw-and-teeth instinct of offense and defense.

Conformably with their striking independence of knives, the Seri are conspicuously unskilful in all mechanical operations involving the use of tools. Their most elaborate manufacture is the balsa, made from reeds broken at the butts and with the leaves and tops removed by the hands or by fire, bound together with hand-made cords; next in elaborateness come the bow and arrow, normally made without cutting tools; then follows their fictile ware, which is made wholly by hand, without aid of the simple molds and paddles and other devices used by neighboring tribes; while their primitive fabrics were apparently of hand-extracted fibers, twisted and woven wholly by hand, with the aid of wood or bone perforators in sewing and possibly in weaving. Practically the Seri possess but a single tool, and this is applied to a peculiarly wide variety of purposes—it is the originally natural cobble used for crushing bones and severing tendons, for grinding seeds and

[1] Defined postea, p. 188.

1: McGee £-5 (1894-1895)1898 NU31 Ser1 NU31

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monly the carapace and the longer bones from the flippers of the larger specimens are preserved entire for other uses, and are cleaned only by teeth and talons and tongues, aided by time but not by fire; but the plastron, unless broken up and consumed immediately, is subjected to a cooking process in which it serves at once as skillet and cutlet—it is laid on the fire, flesh side up, and at intervals the shriveling tissues are clawed off and devoured, while at last the scorched or charred scutes themselves are carried away to be eaten at leisure.[1]

Perhaps the most significant fact connected with the Seri turtle-fishing is the excellent adaptation of means to ends. The graceful and effective balsa is in large measure an appurtenance of the industry; the harpoon is hardly heavier and is much simpler than a trout-fishing tackle, yet serves for the certain capture of a 200-pound turtle; and the art of fishing for a quarry so shy and elusive that Caucasians may spend weeks on the shores without seeing a specimen is reduced to a perfection even transcending that of such artifacts as the light harpoon and fragile olla. Hardly less significant is the nonuse of that nearly universal implement, the knife, in every stage of the taking and consumption of the characteristic tribal prey; for it may fairly be inferred that the comparative inutility of the knife in disseverring the hard and horny chelonian derm, and the comparative effectiveness of the shell-breaking and bone-crushing hupf, have reacted cumulatively on the instincts of the tribe to retard the adoption of cutting devices. Of much significance, too, is the limited cooking process; for the habitual consumption of raw flesh betokens a fireless ancestry at no remote stage, while the crude cooking of (and in) that portion of the shell not consecrated to other uses might well form the germ of broiling or boiling on the one hand and of culinary utensils on the other hand. On the whole, the Seri turtle industry indicates a delicate adjustment of both vital and activital processes to a distinctive environment, in which the abundant chelonian fauna ranks as a prime factor.

Analogy with other primitive peoples would indicate that the flesh of the turtle is probably tabu to the Turtle clan, that the consumption of the quarry is preceded by an oblation, and that there are seasonal or other ceremonial rites connected with turtle-fishing; but no information has been obtained on any of these points save a few vague and unwilling suggestions from Mashém tending to establish the analogy.

Flotsam and stolen metal have played a rôle in the industries of Seriland so long that it is difficult to learn much of the turtle fishing

[1] These details were furnished largely by Mashem and Sahor Encinas, but were verified in essentials by personal observation of dietetic customs at Costa Rica in 1894, and they were corroborated by observations on both shores of El Infiernillo and Bahia Kanhack in 1895. Especially significant were the remnants of a turtle feast on the southern beach of Punta Miguel interrupted by the approach of the exploring party. The indications were clear that the turtle had been landed and largely consumed before the fire was kindled, and that the cooking of the firmer portions had hardly been commenced before the camp was abandoned so hurriedly that not only the nearly eaten turtle and the glowing embers, but the harpoon (the specimen illustrated in figure 39), the still bloody and greasy hupf (that represented in plate LXV), and the fire-sticks were left behind. Gnawed fragments of charred plastrons are common relics about hastily abandoned camps generally.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

262 Probably second in importance among Seri prey, as a food-source merely, stand the multifarious fishes with which the waters of Seriland teem, particularly if the class be held to comprise the cetaceans and seals and selachians ranked as leaders of the fish fauna in Seri lore.

225 Naturally, whales lie outside the ordinary range of Seri game, yet they are not without place in the tribal economy. During the visit to the Seri rancheria near Costa Rica in 1894, it was noted that various [173] events—births, deaths, journeys, etc—were referred to "The Time of the Big Fish"; and it was estimated from apparent ages of children and the like that this chronologic datum might be correlated roughly with the year 1887. The era-marking event was memorable to Mashém, to the elderwomen of the Turtle clan, and to other mature members of the group, because they had been enabled thereby to dispense with hunting and fishing for an agreeably long time, and because they had moved their houses; but the providential occurrence was not interpreted at the time. On visiting Isla Tiburon in 1895, the interpretation became clear; along 172 the western shore of Rada Ballena, near the first sand-spit north of the bight, lay the larger bones of a whale, estimated from the length of the mandibles and the dimensions of the vertebræ to have been 75 or 80 feet long. It was evident that the animal had gone into the shoal water at exceptionally high tide and had stranded during the ebb; while the condition of the bones suggested an exposure to the weather of perhaps half a dozen years. On the shrubby bank above the beach, [361] hard by the bleaching skeleton, stood the new rancheria, the most extensive seen in Seriland, comprising some fifteen or twenty habitable jacales; and fragments of ribs and other huge bones about and within the huts[1] attested transportation thither after the building, while the shallowness of the trails and the limited trampling of the fog 172 shrubbery gave an air of freshness to the site and surroundings. The 262 traditions and the relics together made it manifest that "The Time of the Big Fish" had indeed marked an epoch in Seri life; that when the leviathan landed (whether through accident or partly through efforts of balsa men) it was quickly recognized as a vast contribution to the Seri larder; and that some of the clans, if not the entire tribe, gathered to gorge first flesh and blubber, next sun-softened cartilage and chitin, and then epiphyses and the fatter bones. Some of the ribs were splin- [252] tered and crushed, evidently by blows of the hupf, in order to give access to the cancellate interiors; several of the vertebræ were battered and split, and nearly all of the bones bore marks of hupf blows, aimed to loosen cartilaginous attachments, start epiphyses, or remove spongy and greasy processes. Little trace of fire was found; in one case a mandible was partly scorched, though the burning appeared to be fortuitous and long subsequent to the removal of the flesh; and a bit of charred and gnawed epiphysis, much resembling the fragments of half-cooked turtle plastron scattered over Seriland, was picked up in

[1] One of the smaller vertebræ and part of a rib are shown in the upper figure of plate VI.

1: McCee E-5 (1894-1895)1898 NU31 Seri NU31

bottoms literally writhing with fishes stranded among beds of mollusks and slimy with the abounding plankton of a fecund coast. The region is one of ample, albeit lowly, food supply, where every experience tends toward inert reliance on providential chance, and where the stimulus of consistently conscious necessity seldom stirs the inventive faculty.

Closely connected with fish as a Seri food-source are the various mollusean and crustacean forms collectively called shellfish; and these contribute a considerable share of the sustenance of the tribe.

Apparently the most important constituent of this class of foods is the Pacific coast clam, which abounds in the broad mud-flats bordering Laguna La Cruz and other lagoons of Seriland, and which was still more abundant during a subrecent geologic epoch, to judge from the immense accumulation of the shells in Punta Antigualla. The clams are usually taken at low tide, without specialized apparatus. They are located by feeling with the feet in shallow water, and caught either with toes or with fingers, to be tossed into any convenient receptacle. When the water is entirely withdrawn from the flats, they are located by means of their holes, and are extricated either with a shell-cup or with some other improvised implement. Frequently the entire mess is thrown into a fire until the shells open, when they are withdrawn and the mollusks devoured practically raw; perhaps more commonly the shells are opened by blows of the hupf, and eaten without semblance of cooking; and, except on the surface, no trace of roasting was found among the vast accumulations of shells in Punta Antigualla.

Perhaps second to the clam in frequency of use is the local oyster, which abounds about the more sheltered shores of Tiburon. It is gathered with the hands, aided perhaps by a stone or stick for dislodging the shells either from the extended offshore beds at extreme low water, or from the roots of a mangrove-like shrub at a medium stage. The shells, like those of the clam, are frequently opened by partial roasting; and shells, sometimes scorched, are extensively scattered over the interior, indicating that the oyster is a favorite portable food. The popularity of this bivalve is shared by the Noah's-ark (*Arca*), to which some mystical significance is apparently ascribed; and the abundant limpets and bivalves and other mollusks are eaten indiscriminately, to judge from the abundance of their shells in the middens. The ordinary crab, too, is a favorite article of food, and its claws are numerous in camp and house refuse; while the lobster-like deep-water crab is introduced into the menu whenever brought to the surface by storms, as shown by its massive remains in the middens.

On the whole, shellfish form a conspicuous factor in Seri economy by reason of the considerable consumption of this class of food; but, viewed in the broader industrial aspect, the produce is notably primitive, and significant chiefly as indicating the dearth of mechanical and culinary devices.

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

224 While by far the larger share of Seri sustenance is drawn from the sea, a not inconsiderable portion is derived from the land; for the warriors and striplings and even the women are more skilful hunters than fishers.

The larger objects of the feral chase are deer of two or three species (the bura, or mule-deer, being most conspicuous and easiest taken), antelope, and mountain sheep; to which the puma, the jaguar, and perhaps two or three other carnivores might be added. The conventional method of taking the bura and other deer is a combination of stalking and coursing, usually conducted by five of the younger warriors, though three or four may serve in emergency; any excess over five being regarded as superfluous, or as a confession of inferiority. The chase is conducted in a distinctly ceremonial and probably ritualistic fashion, even when the finding of the game is casual, or incidental to a journey: at sight of the quarry, the five huntsmen scatter stealthily in such manner as partially to surround it; when it takes fright one after the other strives to show himself above the shrubbery or dunes in order to break its line of flight into a series of zigzags; and whether successful in this effort or not they keep approximate pace with it until it tires, then gradually surround it, and finally rush in to either seize it in their hands or cripple it with clubs—though the latter procedure is deemed undignified, if not wrong, and hardly less disreputable than complete failure. When practicable the course is laid toward the rancheria or camp; and in any event the ideal finish is to bring the animal alive into the family group, where it may be dissected by the women, and where the weaklings may receive due share of the much-prized blood and entrails. The dissection is merely a ravenous
264 rending of skin and flesh, primarily with the teeth (perhaps after oblique bruising or tearing by blows with the hupf over strongly flexed joints), largely with hands and fingers aided anon by a foot planted on the carcass, and partly with some improvised device, such as a horn or tooth of the victim itself, the serrated edge of a shell cup, or perhaps a sharp-edged cane-splint from a broken arrow carried for emergency's sake. Commonly the entire animal, save skin and harder bones, is gulped at a sitting in which the zeal of the devotee and the frenzy of the carnivore blend; but in case the group is small and the quarry large, the sitting is extended by naps or prolonged slumberings, and
[252] the more energetic squaws may even trouble to kindle a fire and partially cook the larger joints, thereby inciting pallid appetite to new
[23?] efforts. Finally the leg bones are split for the marrow and their ends
[28] preserved for awls; the horns are retained by the successful huntsmen as talisman-trophies; while the skin is stretched in the desert sun,
224 scratched and gnawed free of superfluous tissue, rubbed into partial
857 pliability, and kept for bedding or robe or kilt.

The chase of the hare is closely parallel to that of the deer save that it is conducted by striplings, who thereby serve apprenticeship in hunt-

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

There is no such well-studied and semiceremonial apparatus for tuna gathering as, for example, the Papago device made from the ribs of the dead saguaro in accordance with traditional formula. 222 [412]

Perhaps second in importance among the vegetal constituents of Seri diet is the mesquite bean, which is gathered in random fashion whenever a well-loaded tree is found and other conditions favor. The woody beans and still woodier pods are roughly pulverized by pounding with the hupf on any convenient stone used as an ahst (metate or mortar), or, if suitable stones are not at hand, they are carried in baskets or improvised bags to the nearest shore or other place at which stones may be found. The half-ground grist is winnowed in the ordinary way of tossing in a basket; and the grinding and winnowing continue alternately until a fairly uniform bean meal is obtained. So far as was actually observed this is eaten raw, either dry in small pinches or, more commonly, stirred in water to form a thin atole; but expressions at Costa Rica indicated that the meal is sometimes stirred in boiling water or pot-liquor, and thus partially cooked, in times of rest and plenty. [262] 252

Other vegetal products used as food comprise a variety of seeds collected from sedges and grasses growing about the mud-flats of Laguna La Cruz and other portions of the province, as well as the seeds and nuts of the scant shrubbery of shores and mountains; while a local seaweed or kelp is eaten in small quantity, apparently as a condiment, and is sometimes carried on journeys even as far as Costa Rica, where specimens were obtained in 1894. 262

It is of interest to note that one of the most distinctive constituents of the Sonoran flora, and one intimately connected with human life in the great neighboring province of Papaguería, is of negligible rarity in Seriland; this is the visnaga (*Echinocactus*, probably of two or three species), the thorniest of the cacti and the only one containing consumable pulp and sap. This peculiar plant is of no small interest in itself as a striking example of the inverse relation between protective devices of chemical sort (culminating in acrid, offensive, or toxic juices) and the mechanical armaments so characteristic of desert plants;[1] it is of still deeper interest economically as the sole source of water over broad expanses of the desert, and one to which hundreds of pioneers and travelers have been indebted for their lives; and it is of interest, too, as a factor of Papago faith, in which the visnaga ranks among the richer guerdons of the rain gods. Throughout most of Papaguería this cactus is fairly abundant; usually there are several specimens to the square mile of suitable soil (it is not found in playas or on the ruggeder sierras), so that it is always within reach of the sagacious traveler; but it diminishes in abundance toward the borders of Seriland, and not more than a dozen examples were found in the portions of that province traversed by the 1895 expedition. Its rare occurrence, 137

[1] Cf. The Beginning of Agriculture. The American Anthropologist, vol. VIII, Oct., 1895, pp. 350-375.

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extreme lightness in proportion to capacity, a quality due to the spongy character of the torote coil and to the thinness of the splints used in the woof. The inside dimensions, weight, and dry-measure capacity (filled to the level of the brim with rice) of two typical specimens approaching extremes in size are indicated in the accompanying table. As noted elsewhere, the ware is absolutely without decorative devices in weave, paint, or form; it is baldly utilitarian, a model of economy in material and in the balance between structure and function, approaching in this respect the thin-walled canteen olla, the graceful balsa, and the light but effective harpoon. The structural correspondence of the ware to a widespread type and its limited use among the tribe suggest an acultural origin for the Seri basketry; but the delicate adjustment of means to ends in the manufacture and the strictly local character of the material quite as strongly suggest an indigenous development.

Museum No.	Diameter	Depth	Weight	Capacity
174529....	38 cm.(15 in.)	9.5 cm.(3¾ in.)	482 g.(17 oz.)	6.25 l. (6.6 qt.)
174530a ..	23 cm.(9 in.)	5.0 cm.(2 in.)	142 g.(5 oz.)	1 l. (1.06 qt.)

It is impossible to portray justly the food habits of the Seri without some reference to a systematic scatophagy, which seems to possess fiducial as well as economic features. In its simplest aspect this custom is connected with the tuna harvests; the fruits are eaten in enormous quantity, and are imperfectly digested, the hard-coated seeds especially passing through the system unchanged; the feces containing these seeds are preserved with some care, and after the harvest is passed the hoard (desiccated, of course, in the dry climate) is ground between hupf and abst, and winnowed in baskets precisely as are the mesquite beans; and the product is then eaten either dry or in the form of atole like the mesquite meal. In superficial view this food factor is the precise homologue of the "second harvest" of the California Indians as described by Clavigero, Baegert,[1] and others; but it gains importance, among

[1] "An Account of the Aboriginal Inhabitants of the Californian Peninsula, as given by Jacob Baegert, a German Jesuit missionary. . . . Translated and arranged for the Smithsonian Institution by Charles Rau: Ann. Rep. Smithsonian Inst. for 1863, pp. 361-399. Baegert's account of foods (pp. 382-387) is so apposite as to be worthy of quotation nearly entire:

"Notwithstanding the barrenness of the country, a Californian hardly ever dies of hunger, except, perhaps, now and then an individual that falls sick in the wilderness and at a great distance from the colonies, for those who are in good health trouble themselves very little about such patients, even if these should happen to be their husbands, wives, or other relations, and a little child that has lost its mother or both parents is also occasionally in danger of starving to death, because in some instances no one will take charge of it, the father being sometimes inhuman enough to abandon his offspring to its fate.

"The food of the Californians, as will be seen, is certainly of a mean quality, yet it keeps them in a healthy condition, and they become strong and grow old in spite of their poor diet. The only period of the year during which the Californians can satisfy their appetite without restraint is the season of the pitahayas, which ripen in the middle of June and abound for more than eight weeks. The gathering of this fruit may be considered as the harvest of the native inhabitants. They can eat as much of it as they please, and with none this food agrees so well that they become corpulent during that period; and for this reason I was sometimes unable to recognize at first sight individuals, otherwise perfectly

1: McGee E-5 (1894-1895)1898 NU31 Seri NU31

262 514 the Seri at least, as the sole method of storing or preserving food-supplies, and hence as the germ of industrial economy out of which a

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050 familiar to me, who visited me after having fed for three or four weeks on these pitahayas. They do not, however, preserve them, and when the season is over they are put again on short rations. Among the roots eaten by the Californians may be mentioned the yuka, which constitutes an important article of food in many parts of America, as, for instance, in the island of Cuba, but is not very abundant in California. In some provinces it is made into a kind of bread or cake, while the Californians, who would find this process too tedious, simply roast the yukas in a fire like potatoes. Another root eaten by the natives is that of the aloe plant, of which there are many kinds in this country. These species of this vegetable, however, which afford nourishment—for not all of them are edible—do not grow so plentifully as the Californians might wish, and very seldom in the neighborhood of water; the preparations, moreover, which are necessary to render this plant eatable, require much time and labor. . . . I saw the natives also frequently eat the roots of the common reed, just as they were taken out of the water. Certain seeds, some of them not larger than those of the mustard, and different sorts of pods that grow on shrubs and little trees, and of which there are, according to Father Piccolo, more than sixteen kinds, are likewise diligently sought; yet they furnish only a small quantity of grain; and all that a person can collect with much toil during a whole year may scarcely amount to 12 bushels.

"It can be said that the Californians eat, without exception, all animals they can obtain. Besides the different kinds of larger indigenous quadrupeds and birds, they live nowadays on dogs and cats; horses, asses, and mules; flies, on owls, mice, and rats; lizards and snakes; bats, grasshoppers, and crickets; a kind of green caterpillar without hair, about a finger long, and an abominable white worm of the length and thickness of the thumb, which they find occasionally in old rotten wood, and consider as a particular delicacy. The class of game, such as deer and rabbits, furnishes only a small portion of a Californian's provisions. Supposing that for 100 families 200 deer are killed in the course of a year, which is a very favorable estimate, they would supply each family only with three meals in three hundred and sixty-five days, and thus relieve but in a very small degree the hunger and the poverty of these people. The hunting for snakes, lizards, mice, and field-rats, which they practice with great diligence, is by far more profitable and supplies them with a much greater quantity of articles for consumption. Snakes, especially, are a favorite sort of small game, and thousands of them find annually their way into the stomachs of the Californians.

"In catching fish, particularly in the Pacific, which is much richer in that respect than the Gulf of California, the natives use neither nets nor hooks, but a kind of lance—that is, a long, slender, pointed piece of hard wood—which they handle very dexterously in spearing and killing their prey. Sea-turtles are caught in the same manner.

"I have now mentioned the different articles forming the ordinary food of the Californians; but, besides these, they reject nothing that their teeth can chew or their stomachs are capable of digesting, however tasteless or unclean and disgusting it may be. Thus they will eat the leaves of the Indian fig-tree, the tender shoots of certain shrubs, tanned or untanned leather, old straps of rawhide, with which a horse was tied together for years; fern, the bones of poultry, sheep, goats, and calves; putrid meat or fish swarming with worms, damaged wheat or Indian corn, and many other things of that sort which may serve to appease the hunger they are almost constantly suffering. Anything that is thrown to the hogs will be also accepted by a Californian, and he takes it without feeling offended, or thinking for a moment that he is treated below his dignity. For this reason no one took the trouble to clean the wheat or maize, which was cooked for them in a large kettle, of the black worms and little bugs, even if the numbers of these vermin had been equal to that of the grains. By a daily distribution of about 150 bushels of bran (which they are in the habit of eating without any preparation) I could have induced all my parishioners to remain permanently in the mission, excepting during the time when the pitahayas are gathered.

"I saw one day a blind man, 70 years of age, who was busily engaged in pounding between two stones an old shoe made of raw deerskin, and whenever he had detached a piece he transferred it promptly to his mouth and swallowed it; and yet this man had a daughter and seven grandchildren. As soon as any of the cattle are killed and the hide is spread out on the ground to dry, half a dozen boys or more will instantly rush upon it and commence to work with knives, flints, and their teeth, tearing and scratching off pieces, which they eat immediately, till the hide is full of holes or scattered in all directions. In the mission of St. Ignatius and in others farther toward the south there are persons who will attach a piece of meat to a string and swallow it and pull it out again a dozen times in succession, for the sake of prolonging the enjoyment of the taste.

171 262 514 252 "I must here ask permission of the kind reader to mention something of an exceedingly disgusting and almost indecent nature, the like of which probably never has been recorded of any people in the world, but which demonstrates better than anything else the whole extent of the poverty, uncleanness, and voracity of these wretched beings. In describing the pitahayas I have already stated that they contain a great many small seeds resembling grains of powder. For some reason unknown to me these seeds are not consumed in the stomach, but pass off in an undigested state, and in order to save them the natives collect during the season of the pitahayas that which is discharged from the

1: McGee E-5 (1894-1895)1896 NU31 Seri NU31

feeble thrift-sense may be regarded as emerging. And the rise of thrift in Seriland, like esthetic and industrial beginnings generally, is shaped

human body, separate the seeds from it, and roast, grind, and eat them, nothing more than their barbarous mode, which the Spaniards therefore call the second harvest of the Californians. [This statement is corroborated in all particulars by Clavigero in his Storia della California, Venice, 1789, vol. i, p. 127.] When I first heard that such a filthy habit existed among them I was disinclined to believe the report, but to my utter regret I became afterwards repeatedly a witness to the proceeding, which they are unwilling to abandon, like many other bad practices [probably because of the bloated character of the contents.—W J M.]. Yet I must say in their favor that they have always abstained from human flesh, contrary to the horrible usage of so many other American nations who can obtain their daily food much easier than these poor Californians.

"They have no other drink but the water, and however to protect that they are unacquainted with such strong beverages as are distilled in many American provinces from Indian corn, the aloë, and other plants, and which the Americans in these parts merely drink for the purpose of intoxicating themselves. When a Californian conversazione during his wanderings a pond or pool, and feels a desire to quench his thirst, he lies flat on the ground and applies his mouth directly to the water. Sometimes the horns of cattle are used as drinking vessels.

"Having thus far given an account of the different articles used as aliment by the aborigines of the peninsula, I will now proceed to describe in what manner they prepare their victuals. They do not cook, boil, or roast like people in civilized countries, because they are neither acquainted with these methods nor possessed of vessels and utensils to employ for such purposes; and, besides, their patience would be taxed beyond endurance if they had to wait till a piece of meat is well cooked or thoroughly roasted. Their whole process simply consists in burning, singeing, or roasting in an open fire all such victuals as are not eaten in a raw state. Without any formalities, the piece of meat, the fish, bird, snake, field mouse, lizard, or whatever it may be is thrown into the flames or on the glowing embers, and left there to smoke and to sweat for about a quarter of an hour; after which the article is withdrawn, in most cases only burned or charred on the outside, but still raw and bloody within. As soon as it has become sufficiently cool, they shake it a little in order to remove the adhering dust or sand, and eat it with great relish. Yet I must add here, that they do not previously take the trouble to skin the mice or disembowel the rats, nor deem it necessary to clean the half-emptied entrails and maws of larger animals, which they have to cut in pieces before they can roast them. Seeds, locusts, grasshoppers, green caterpillars, the white worms already mentioned, and similar things that would be lost, on account of their smallness, in the embers and flames of an open fire, are parched on hot rocks, which they constantly throw up and shake in a turtle shell or a kind of frying pan woven out of a certain plant. What they have parched or roasted in this manner is ground to powder between two stones, and eaten in a dry state. Roots are treated in like manner.

"They eat everything unsalted, though they might obtain plenty of salt; but since they cannot dine every day on roast meat and constantly change their quarters, they would find it too cumbersome to carry always a supply of salt with them.

"The preparation of the *aloë*, also called *mezcale* or *maguey* by the Spaniards, requires more time and labor. The roots, after being properly separated from the plants, are roasted for some hours in a strong fire, and then buried, twelve or twenty together, in the ground, and well covered with hot stones, hot ashes, and earth. In this state they have to remain for twelve or fourteen hours, and when dug out again they are of a fine yellow color, and perfectly tender, making a very palatable dish, which has served me frequently as food when I had nothing else to eat, or as dessert after dinner in lieu of fruit. But they act at first as a purgative on persons who are not accustomed to them, and leave the throat somewhat rough for a few hours afterwards.

"To light a fire the Californians make use of steel and flint, but obtain it by the friction of two pieces of wood. One of them is cylindrical, and pointed on one end, which fits into a round cavity in the other, and by turning the cylindrical piece with great rapidity between their hands, like a twirling stick, they succeed in igniting the lower piece if they continue the process for a sufficient length of time.

"The Californians have no fixed time for any sort of business, and eat, consequently, whenever they have anything, or feel inclined to do so, which is nearly always the case. I never asked one of them whether he was hungry who failed to answer in the affirmative, even if his appearance indicated the contrary. A meal in the middle of the day is the least to see among them, because they all set out early in the morning for their foraging expeditions, and return only in the evening to the place from which they started, if they do not choose some other locality for their night quarters. The day being thus spent in running about and searching for food, they have no time left for preparing a dinner at noon. They start always empty-handed; for if provisions something remains from their evening repasts they certainly eat it during the night in walking moments or on the following morning before leaving. The Californians can endure hunger easier and much longer than other people; whereas they will eat enormously if a chance is given. I often tried to buy a piece of venison from them when the skin had but lately been stripped off the deer, but regularly received the answer that nothing was left; and I knew well enough that the hunter who killed the animal needed no assistance

2: Kroeber E-5 (1930) 1931 NU31 Seri NU31

sounds like an expectable enough mythic idea, but seems involved with McGee's dubious conceptions as to totemism, discussed below. 114 193

The two-pointed fish-spear, with serrated points 6 inches long and spreading 5°, seen by Hardy (McGee, p. 193), is interesting because seemingly unreported in or near the area. 114 227

"Fishing" with staked pelicans who are then fed by free birds, is authenticated by the statement of Venegas for lower California, (McGee, p. 193). [226 231]

No fish nets, hooks, or lines were seen by McGee among the abandoned effects on Tiburon (p. 194). This is in accord with my observation. The abundance of sharks may interfere with net or deep water fishing.

The bow (p. 200) is of *palo blanco;* the release (pls. 28, 29), Mediterranean; the archer's position (pl. 29), with elbow above head, suggests a quick downward shot at a target or game lying on the ground not far away. 114 411

Mesquite, according to McGee (p. 207), is ground on the metate. Sr. Thomson told me of its being pounded in a hole in the ground. The Seri gave me the name a'kata for what I understood to be this earth mortar. According to Sr. Thomson's description, the flour from the first beans cakes and lines the cavity firmly, so that the bulk of the material is secured quite cleanly. In general, mesquite is mortar-pounded rather than metate-ground by the tribes from whom we have records, as is expectable from the woody nature of the beans. 114 252

McGee (p. 207) noted the viznaga cactus, Echinocistus, as rare in the Seri habitat, presumably owing to its use for water by the natives. I made the same observation on the mainland, but Sr. Thomson stated that along the roads the plant is being gathered for candying. 114 137

The one basket described by McGee (p. 208, fig. 24) is bundle-coiled and plain. The only one I saw in use among the Seri was ornamented with a plain reddish band. Sr. Thomson presented me with two which bear patterns (fig. 13), and showed me a photograph of a collection made by Mr. Davis for the Museum of the American Indian, Heye Foundation, nearly all of which were decorated, some fairly elaborately. Several of these are shown by courtesy of that institution in figure 12. As McGee observes, there is obvious resemblance to Southwestern baskets; especially of the Papago, Pima, and Apache. Southern California basketry is less similar. That of Baja California is unknown from specimens, though the mention of water-tight vessels used for winnowing and parching suggests a coiled tray of Seri type. The surviving tribes of Sonora other than the Seri use few baskets distinguishable from those of the non-Indian population. 114 285 [171]

S-Davis & Dawson S-5 (1922-1940) 1945
NUBI Sent NUBI

225 through the shell. The foreshaft was jerked out at the first movement of the animal which was held by the fisherman's line until tired, after which it was either driven ashore or lifted onto the balsa.

No sooner was the quarry landed than the soft undershell was crushed and broken loose with a cobblestone "hupf," and then torn off
264 by the tribespeople with the impetuous fury of blood-crazed carnivorous beasts. The entrails and soft, bloody gore were first consumed, followed, depending upon the proximity of the last meal, by the firmer flesh, all but the infants of the household pounding, tearing and chewing their raw, grisly
[252] chunks, stopping to singe or half roast larger pieces only if near satiety. If immediate consumption of the prey was not accomplished, the remnants were carried to the rancheria and there lifted to the top of the jacal to soften in the sun. The reeking carapace was often left indefinitely beside the

[197]

Photo by J. B. Harrison

FIG. 9. PITAHAYA AND SAGUESO CACTI
PROVIDE A RICH HARVEST OF FRUITS IN SUMMER.

[p. 199(A)]

2:Davis & Dawson E-8 (1922-1940) 1945
NU31 Seri NU31

222 forests of giant cacti (Fig. 9) provide during this season an unlimited supply of "pitahayas" toward which the tribespeople customarily moved to accomplish the annual harvest. The fruits were readily knocked down by means of long poles and, when ripe, the spines were easily brushed off, leaving a luscious pulp as big as a fig. During the height of the season all the clans withdrew from the coast and gave their undivided attention to the collection and consumption of the cactus fruit, gorging tremendous quantities for weeks until waning supply and cloying appetite drove them back to the more severe hunt for turtle and pelican.

252 262 514 Perhaps the only germ of thriftiness in the Seris is shown by a peculiar custom with respect to the pitahayas. The fruits, eaten in such enormous quantity, were imperfectly digested, the hard-coated seeds particularly passing through the body unchanged. Using [415] [251] large seashells, the feces containing these seeds were collected and preserved with some care. Thus, when the harvest of fresh fruits was over, there remained a hoard of these dry, nutritious discharges which were ground on the stone abst, winnowed in a shallow basket and made into a meal to be eaten, either dry, as a watery atole, or mixed with turtle grease to form a thick paste.

614 Although the Seri's omnipresent problems of food-getting and of personal subsistence have been of particular interest, the lost social customs of the tribe deserve a moment's attention. Before the death of all [161] but a few of the 2,000–3,000 Seris at the hands of invading Spaniard and Mexican, the tribe consisted of a number of conspicuous maternal clans, each of which was presided over by a sole tutelary such as the Pelican, the Turtle, the Rattlesnake, or the Badger. The totemic symbols denoting the 302 386 614 various beast-gods and incidentally indicating the blood-carriers of clans dedicated to them, consisted of elaborate designs painted upon the face (Fig. 10). In accord with their savagery in which the social organization was based on blood kinship reckoned in the female line, under ordinary circumstances, the faces only of the females were painted. Colored minerals pounded to powder afforded the pigments for the paint-

[p. 201(A)]

648 on the settlements of Sonora. Many expeditions, fitted out at great expense, were sent
726 against them, but in that barren land, destitute of water, the military parties suffered greatly in their campaigns, and succeeded little in their efforts to conquer the wary natives.

177 By 1850 probably every Seri between in-
648 fancy and decrepitude had seen the proprietor and other inhabitants of the rancho of Don Pascual Encinas at Costa Rica where the Seris were abnormally tolerated and even encouraged to make themselves useful and unobjectionable. They yielded to indolent scavengering more than ever before; they substituted cast-off rags and barter-bought cotton cloth for their pelican robes and other primitive garments. They ate cooked food when it fell their way; half heartedly they adopted metal cutting implements and sought or stole nails and hoop-iron for arrow
[191] points. Some acquired a smattering of Spanish and many came to sport Spanish names. Never, however, did more than one or two Seris come to live in a house, nor even to encompass the idea of making adobe. They had not learned to ride horses nor to burden them, but only to use them for immediate slaughter and consumption. They were acquainted with firearms, but it was not until years later that they learned to use them. In and about Rancho Costa Rica the Seris and the Mexicans lived for a time in mutual tolerance, certain depredations being allowed the Indians just as were the rodents of the rancheria.

When, in 1855, Don Pascual Encinas ex-
648 perienced the loss of unusually large num-
721 bers of stock from Seri raids, he was aroused into announcing that a Seri head would be taken for each head of stock stolen. For a while the Indians seemed to acquiesce, but within a few days a group of Seri women "milled" a band of horses, caught and threw one so that its neck was broken, whereupon
[252] they immediately sucked its blood, gorged on its intestines, and buried its quarters to "ripen" according to their custom. The vaqueros of the settlement were instructed to shoot the first Seri seen on the llano. Within two days the tribe was on the warpath and the war raged for a decade.

[p.262(B)]

Game pursuit is usually done on foot, mostly in the winter and very little in the summer. The intense heat of the desert in the summer makes hunting unattractive. The most frequent trophies are the Sonoran bighorn, peccary, cottontail and jack-rabbits. Sometimes, semi-wild burros, running loose on the adjacent extensive Mexican "rancherias", are poached for meat. The peccary is the only animal hunted with the aid of dogs. Large rodents are dispatched by sling-shot, stick, stone, or shot with a .22 caliber rifle. Birds, such as sea-gulls, ducks and pelicans, are clubbed, stoned or shot with a small caliber rifle.

While fishing and hunting are primarily men's occupations, the gathering of the terrestrial and marine animals is almost exclusively women's work. Rattlesnakes and other reptiles are often killed and brought to the encampments by the women from their morning trek into the desert after firewood and fruit. Small fish and marine invertebrates in the tidal pools are collected by women, aided by children of both sexes.

Preparation of meat is quite simple. It is either boiled in hot water with salt added as the only seasoning or else roasted whole, if small enough, over an open fire with or without a grill. The use of spices such as tomato sauce, chili, peppers, and the like, depend upon the tastes of the individuals and also upon the availability of money.

In individual competence as hunters or fishermen the men show a great deal of variability. Some excel in fishing while others do so in hunting. Hand in hand with this, goes the degree of knowledge of the local natural history and, as expected, the best fishermen lead in the knowledge of fishes while the best hunters possess the most extensive knowledge of terrestrial animals and insects. It has also been observed that boys were far ahead of adults in their knowledge of inconspicuous or otherwise commercially unimportant creatures such as insects, obscure marine invertebrates and small fishes. Interest in the commercially or otherwise economically important forms of animals unquestionably becomes overwhelming in adult life while much of the natural history lore learned in youth is forgotten.

Food Preferences and Taboos

A number of animals were reported as being a part of their diet in the past but which were not used at the present time. Several species of shells collected from kitchen middens along the coast were thus identified. In some instances it has been denied that a certain animal was used for food; yet, later when such a beast was brought to the camp, it would be added to the menu. Undoubtedly, some of the species were held in low esteem as food and the Seris preferred not to admit eating them.

Large fishes, especially pinta and baya, sea-turtles, and the very large chuckwalla lizard, which is brought back from rare expeditions to San Esteban Island, are the preferred cuisine. Cochi fish, also called puercos, are disdained. Large catches of these were frequently brought in from the sea, only to be unceremoniously dumped on the beach and left to the dogs and the vultures. But when other fish were scarce, the puercos were eaten. Pelicans, once an

ingenuity of a modern shipbuilder to have constructed a boat. These simple, desert people, however, through centuries of struggle for life in their desolate realm had learned to use every natural material available to them, however laborious the tasks and inefficient the products. The carrizal reed, *Phragmites communis*, grows about the few permanent water holes of Seriland, and from countless numbers of these slender, buoyant canes they built their watercraft. The reeds were stripped of leaves and gathered in long bundles, bound together and gradually augmented by more and more interlaced canes until a bundle 18 to 30 feet long and 1½ feet in diameter, tapering at both ends, was made. Three of these were then bound together with cords of fiber or human hair, making a maneuverable one or two man raft, easily transported to the shores.

The mesquite tree, *Prosopis juliflora*, provided fiber for cords. The flexible outer tissues of the roots were stripped off, soaked and progressively pounded, split and worked between hand and mouth until very slender, fibrous threads were obtained which were then twisted into cords. In some cases a coarse, rough fabric was woven from these fibers, but most garments were made of pelican skins. The strips of workable mesquite root or sometimes yucca fiber were also used in making doughnut-shaped head pads which aided in balancing the capacitous earthen water jars as they were carried on the heads of the women over rough and stony trails from water hole to camp site.

While occupying the turtle fishing camps on El Infiernillo during the good season, vegetable supplements to the fishy diet were few. Every nourishing seed or woody fruit yielded by the desert was carefully gathered; even the tiny seeds of the sea grass, *Ruppia*, were sorted from beach drift and made into meal. Never did the Seris learn to cultivate any crop or domesticate any animals other than the half wild coyote dogs that lived in mutual toleration with them. Even had they done so, their success in the barren, waterless land would have been small.

Sterile as is the Seri's hinterland, for a time each summer the thorny plants with which it is so profusely stocked ripen an abundant crop of fruit. The cacti in particular yield a wonderful harvest of luscious and succulent fruits, and toward this fortuitous supply the Seris were accustomed to move in June and July. The foothills of Sierra Seri on the mainland are adorned with great numbers of giant cacti, *Pachycereus Pringlei*, *Carnegiea gigantea* and *Lemaireocereus Thurberi* from which the luscious pitahayas were readily knocked down when ripe. The Indians wandered into the cactus forest and after a simple ritual marking the beginning of the feast, proceeded to gorge themselves for weeks on the succulent fruit until waning supply and cloying appetite drove them back to more severe food-getting activity by the sea. They did not customarily find it necessary to leave the cactus forest, however, as soon as the supply of fruits was no longer sufficient, for by the time the fruiting season was ended they had provided themselves with a second harvest. The pitahayas, gorged in such tremendous quantity throughout the season, were very imperfectly digested; the miriads of hard seeds, particularly, passed through the system unchanged and with the preservation of these in mind the Indians carefully collected with the aid of large sea shells all such seedy discharges and let them dry in the desert sun. Thus, as the supply of fresh fruit faded they proceeded to the use of this hoard

5:Dawson N-5 (1940) 1944 NU31 Seri NU31

of nutritious material which was ground to powder on their stone ahsts, winnowed in shallow baskets and made into a meal or paste.

The abundant cacti of many species served several other functions in the domestic economy of the Seris. The thorny cholla whose insipid fruits were not fit to eat and whose spines were a constant threat to the unprotected bodies of the Seris, found one use, nevertheless, in the burial procedure. After a body was partly covered with earth in the three foot deep grave, it was densely overlaid with chollas before leveling, to discourage the coyotes from digging for the body.

The dry skeletons of the giant cacti provided the long, cylindrical poles used in knocking off ripe pitahayas as well as in all other instances in which a straight, slender pole was needed. Since the advent of the open boat in modern times, the cactus skeleton has come in for a new use, for after trituration between stone ahst and hupf, it was found to yield a satisfactory caulking compound when mixed with sea-lion oil.

The barrel cacti, *Ferocactus Wislizenii* and *F. Coulteri*, though ordinarily abundant on the Sonoran desert are rare in Seriland and practically absent from Isla Tiburon where they may easily have been exterminated by the improvident Seris during their centuries of occupancy on account of their recognized value as water providers on the wastelands over which the Seris so frequently ventured.

These Indians found housing no problem, for, living under a climate in which frost is rare and rain infrequent, they found little need for shelters except for protection against the blazing desert sun. Camps that were occupied for more than a day or two, however, usually saw the appearance of a group of crude sun shelters. These were usually made of long, flexible ocotillo branches, *Fouquieria splendens*, stuck in the sand and fashioned into an arched framework over which a more or less complete covering of brush was piled. If, by the sea, a windbreak were desired, the brush top and siding were usually augmented by the addition of several empty turtle shells.

On the delta plain of the Rio Sonora, the mesquite, *Prosopis juliflora*, grows in remarkable luxuriance, these gnarled, spiny trees forming an almost continuous open forest 20-40 feet high. Its fruit, consisting of small, hard beans borne in slender, woody pods forms a concentrated, starchy food that the Seris found highly nutritious if not appetizing. In late summer when all fresh vegetable food had withered and disappeared, provided the turtle fisheries had not yet attracted them back to their island, they often spent some weeks gathering the beans and grinding them into a meal which was eaten as a watery atole or as a paste mixed with sea-lion oil. The more straggly and thorny cat's claw mesquite, *Acacia Greggii*, and the ironwood, *Olneya tesota*, also yielded woody beans in limited quantity.

In the deeper gorges of the mountains the Seris found *Guaiacum Coulteri* yielding a berry of medicinal properties and also *Jacquinia pungens* which produced a nut, edible when not quite ripe, and forming a favorite rattlehead when dry.

Along sandy washes, particularly on the lower flood plain of the llano grows a low, shrubby weed, *Hymenoclea monogyra*. Although during times of drought it shrinks to stunted tussocks, after periods of heavy rain its flourishing fens produce abundant seeds eaten both by the beasts of the plain and formerly by the Seris.

Before the advent of the tin can and the cardboard carton, basketry was

[TEXT CONTINUES ON P. 138 ...QUAYSP]

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

III

MAMMALS

262 water for a week until it escaped. There was
[231] no intent to do away with it and serve it up for dinner later on.

The 3 species reported as eaten in the past are kangaroo rat, sea lion and the ringtail cat or
[252] cácomistle. Of these the little rodent had been supposedly "boiled in hot water with salt" which
[261] method of preparation may indicate that it happens quite recently yet. It is quite possible that in times of famine this animal is still used. The sea
[432] lion has been reported as "eaten once a long time ago. All of it. But not now. Its hide was once sold
[114] also but now it isn't used at all." This conflicts with McGee's statement (McGee, 189:202) that there was a taboo on eating sea lions among the Seris and there is no way to reconcile the information.

[114] McGee's report may be as truthful as are the uncertain and hazy comments of the present day Indians.

224 On the other hand, the cougar belongs to a very dubious category, unless we can rely on Miguel Barnett's memory. All 4 of the younger informants emphatically deny that the cougar has ever been hunted for meat. But Miguel Barnett claimed that this has been done in the past, although he could not tell how long ago. Kroeber says nothing about this animal and this makes it difficult to date the events. At the time of Kroeber's visit, Miguel was at least 25 years old and the cougar could have been hunted either
[262] then or earlier. But today the Seris do not eat the flesh of the big cat and their abhorrence of it has been confirmed by the Mexicans to whom I talked about the subject, and who relish cougars' meat. This apparent distaste for the *el tigre's* flesh may
[178] well be a recent development quite unconnected with the lack of weapons. McGee (1894: *loc. cit.*) casually mentions that the Seris hunt both cougars
[411] and the jaguars but cites no evidence for it. Yet in his time Seris' almost only weapons were the
[177] bow and arrow and a lance which today has been replaced by firearms. I am unable to explain this contradictory behaviour.

262 Finally, there is the Ringtail cat or cácomistle. Although this beast has been reported as part of the diet, the information isn't too reliable. I had
[124] no way of checking whether this was the animal the Indians had in mind. Their description of it seemed to answer some other unspecified animal and their answers were confused. The fact is that the Ringtail cat does occur in the Seri territory and they are surely familiar with it.

Of the remaining 11 species none were ever mentioned by any of the informants as having been ever eaten. Their denial of eating the coyotes were most vehement. Coyote figures out probably

[P.98]

Coyote figures out probably

as an important and perhaps disreputable figure in the mythology although nothing but scraps and bits of information suggest this. It is possible that there is actually a taboo on eating this animal or perhaps it is so disreputable that eating its flesh would put a gourmant in an inferior position.

How important is the Seri mammalian diet is hard to tell. It certainly looms more heavily during the winter, because in the cool season hunting is easier than during the heat of the summer and in fact this is when most of it is done by the ardent hunters. Too, winter subjects the Seris to greater hazards and is apt to increase their dependence on the desert resources over that during the summer, even if these resources are scantier at that time.

To all of these animals one should add the semi-wild burros running about the extensive Mexican rancherias. The Indians poach on them frequently using their fire arms, usually the .22 caliber rifles. In any case, it appears that during the summer when the field work was carried out, the mammalian diet figures quite lightly on the Seri table.

Food preparation: Very little is done in the preparation of the mammalian meat. All that I could observe was the boiling of it in hot water spiced with salt. The Indians were saying that in order to have the meat of a peccary, deer or bighorn ready to eat one must boil it 2-3 hours. The same procedure is followed with the meat of the burros. In contrast to this, as shall be seen later, fish are boiled as well as roasted while the turtles are also dried and salted. Preparation of meat is done by women, certainly at least in the encampments when they are present.

Food preferences: Some of the Seri food preferences have already been mentioned. At the top of the list as the desirables are the peccary, the deer, the bighorn and the blacktail jackrabbit; at the bottom is the badger, whose meat "is not much good." There is also preference by sex. Females of both the bighorn and peccary are preferred over the males "because they do not have the bad odor like the males." This sort of favoritism also occurs among the Mexicans. However, the Indians did not elaborate beyond this point.

Other economic uses: Apart from meat, hides are also used. The hides of the deer, bighorn and peccary had been used for sleeping mats although this matter has been expressed in the past tense. Miguel Barnett also suggested that the bighorn hides had been used for clothing by the Indians in the past—but he neglected to say how long ago. During Kroeber's stays, no Seris went about in the animal or bird (pelican) skins but earlier when McGee visited them they went about in these simple garments. Judging then by Miguel's memory, the use of the bighorn hide for clothing must be pushed back to the period of World War I or even earlier.

Miguel Barnett indicated that the "fur" of the bighorn had once been worn for the cold season "but not now."

[P 10 A]

9:Malkin E-5 (1963-1968)1982 NUXI Seri NUXI

IV

BIRDS

136 128 Woodpecker—There are several species in the area but Gila woodpecker (*Centurus uropygialis*) is certainly one of them.

Hummingbird—Unspecified species, one of several occurring in the area according to Dr. Orr.

Economic Uses

262 Such use as had been made of the birds is largely in the form of an addition to the diet. Reading McGee, one gets the impression that the importance of the birds in the Seri diet, in contrast to the marine animals of all description, has declined greatly. We do know that in the past various birds and, most especially, the seagulls and the pelicans represented a significant item. But today out of the basic list of 24 species, only six has been reported as eaten and all, with an exception of the duck, in the past tense. The duck *[825] evidently is the only bird which the Seri consider really fit to eat and yet, even here, there is temporary avoidance. Moreno told me that this bird "we eat only when we visit the island (Isla Patos). [223] But we do not eat it in September because it is too lean. We like it in December when it is fat. We [252] then kill it at night with stones. It is roasted."[1]

All other birds were reported as eaten only in the past and this has been expressed more or less as follows: sea-gull eaten a few years ago, cormorant 8-10 years ago, pelicans 30-35 years ago. This would mean that the pelicans had been discarded as food, at least according to the official Seri version, in the early twenties, before Kroeber's visit. But the Seri disclaimers on the subject 183 of the bird diet are not entirely correct and re- 262 flect less the total rejection and more only low esteem in which these birds are held. For I have seen myself the sea-gull and the pelican eaten on few occasions when times were tough, and the [261] food supply was non-existent, owing to the choppy and windy seas. The Seris caught in the act of *[825] cooking the meagre flesh of the pelican or the seagull were obviously apologetic.

262 It is interesting that some of the birds present in the area, the quail or the woodpeckers, are not eaten although these birds figure prominently in the diet of some of the other groups. It may well be that the Seris consider them too small to bother.

[252] As far as I could find out, eggs of only two species of birds, the sea-gull and the heron, are collected, boiled and eaten. But the eggs of the

[1] His statement requires some explanation. There is no taboo on eating duck but the bird does not occur in Desemboque or any other place known to the Seris, with the exception of Isla Patos. Here these birds winter, [136] arriving in September and arrive worn out and lean, to *[825] recoup the fat, a few months later. The Seri unfamiliarity with their eggs is another indication that the birds come to Isla Patos only for the winter.

262 tions to San Esteban or San Lorenzo. The turtles
[225] now are as much a food as a "cash crop." While
[439] the Seris are camped at Desemboque, most of the turtle catch is sold alive to the Mexican fish traders who are headquartered in Nogales and Hermosillo and take the catch along with the fishes to the markets in these towns and sometimes even as far as Phoenix and Tucson.

Of the remainder, the most frequent items that show up on the Seri table are probably the rattlesnakes and the desert tortoises. The rattlers are eaten with relish—only the heads and the tails are discarded as poisonous. The larger chuckawalla is considered a particular delicacy but is rarely caught because it lives in a somewhat distant region. The remainder of the animals listed as "eaten" are collected only incidentially.

It is probable that very few species are really left alone and not taken as food at various times, especially when famine distress overruns the camp. As far as I could determine, only three species are rejected as altogether unfit to eat: the gecko, the night lizard and the toad. All three are believed to be highly toxic "in flesh and blood" although real harm could be caused only by the toad. Besides, the two lizards are really tiny creatures and would make little difference when a survival is at stake.

*825 Few reptilians are ever used as anything but
[439] food. The sea turtles in a way are at certain times,
237 that is, when they are sold for hard cash to the Mexican traders, whether live or sliced and salted. The only other creature I ever heard about as being used for anything at all was the coral snake. At least one informant suggested that in the past its hide has been used for hat decoration. But coral snakes are scarce and this again could be only incidental. It may be that the rattlesnake hide, especially of the large specimens of the western
[439] diamondback, is sold occasionally to a passing visitor but this again is a rare occurance.[1]

Food Preparation

252 Food preparation of the majority of animals in
[263] this group is no different than of most other animals. They are simply skinned, tossed into a pot of boiling water and cooked, occasionally with salt as the only ingredient. Larger individuals, notably turtles, will be quartered and then boiled or roasted on a grill. The chuckawalla and the desert tortoise are said to be fried, but whether this is the usual procedure I can't say, because only a few of them had been brought into camp in my presence. The tail of the Gila monster supposedly had been fried in oil "in the past."

Food Preferences and Taboos

262 It is obvious that some creatures in this group are considered better food than others. The chuckawalla is especially favored. When several were brought in from San Esteban, I couldn't persuade the owners to part with them, although I offered a huge price (for local conditions). The captors took

[1] Another use in the past—snake-skin belt worn. It is illustrated by McGee (1898:170, Fig. 7).

[291] [P. 23A]

9:Malkin E-5 (1953-1955)1962 NU31 Seri NU31

262 en simply because their flesh is disliked and unfit for human consumption. But it may also well be that some of them, especially of the giant variety, are not eaten simply because they are far too large to tackle and the Seris fear hunting them.

The Seris indicated also in some cases that larger specimens of fishes are eaten when they reach the size which would justify the effort. This is true of *Malacoctenus zonifer* which they indicated is "eaten when large," that is when at least 10 cm. long.

[226] Although only sometimes did the Seris specifically indicate that certain fishes are used for bait, it is very likely that almost all small or lesser fishes are so used.

262 178 In some cases the Indians indicated changes in preference for given fishes, with the time. For unexplained reason *Gymnothorax castaneus*, the morene, has been claimed to have been eaten in the past but not for the last 11 years. It isn't clear why the figure of 11 had been used and why suddenly in the early 40's they should stop eating it while the Mexican drool over it. But it may be also that here we have merely personal preference of the informants, as so often happens. As for the *pescara* it was formerly taken for food [439] but now it is merely sold to the Mexicans. This practice is increasing also to include the immense *mero*, even larger than the *pescara*. The fish is mainly sold but rarely eaten by the Seris themselves.

Food Preparation and Preferences

● 252 Food preparation is simple and in the main differs not at all from the preparation of other animal diet. The fish are either boiled whole or in part or else are roasted over slow fire on a grill. The entrails are usually discarded, but otherwise the beasts are eaten entire, eyes, brains and the rest, while the tiny fishlets are eaten complete with the scales and guts.

262 As for the preferences, as expected, there are some fishes that the Seri like better than others. The *bass* in the first place and the *pinto* in the second lead the list. The Seri prefer them to all others and consider them a real delicacy. On the other hand, there are some fishes that they'll eat only under protest, meaning when times are hard. *Girella simplicidens* is one such creature. The *Puerco* or *Cochi* is another. I have seen boat loads of puercos brought in with the other fish and un- [231] ceremoniously dumped out on the beach to the dogs. Literally! The Seris took to this fish only when fishing was poor during the wintry days when they were held ashore by the weather. Even [183] then, they tried to eat the despised creatures on the sly, avoiding being seen doing this, and when I or the Mexicans picked up fresh fish from the beach to take home they laughed saying that we acted as a *cochi* (pig) would!

Other Economic Uses

* 825 237 322 One use made of fish concerns two species of sharks, the *chato* and *camposo*. Here, the informants claimed, the oil from their liver had been used in earlier times for polishing wood. This is

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262 now," while the *Volsella* has been eaten in the past
172 just as much as it is now. The find of these four species in great numbers in the kitchen-middens only indicates that they probably were an important part of the Seri past. Historical records are scarce and no archaeology had ever been done in the region, except for Gifford's (as yet unpublished) excavations at Caborca. But Caborca is far away from the coast. Strong circumstantial evidence suggests that a good many of the kitchen-middens represent relics of the Seris' past encampments.

262 The verbal data for the Seris' past use of some species of molluscs in their diet is uncertain or unavailable. But it is safe to assume that if the animal is eaten today, then it certainly had been [174] also eaten in the past. It is not probable that the Seris should suddenly develop a taste for obscure kinds of animal food, while the entire trend had been in the other direction.

Of the different species the augur shell and the cone shell were said to have been "eaten in the past by the giants. Maybe 300-400 years ago." It is [173] hard to account for this idea except that it probably refers to a myth.

Preparation

● 252 Preparation of the mulluscan food differs little, if at all, from any other food of animal origin. The animals are simply separated from the shell, the meat is dropped in water and boiled, usually [263] for half an hour. Few ingredients other than salt are added and their use depends entirely on the availability of cash and on the individual tastes of the Indians. As far as I could tell, there is no differentiation in this for people of different sexes 262 or ages. Also there is no preference for different parts of the body.

Preferences

Some species are more liked than others, but this is related to their size rather than anything else. There does not appear to be any belief in the toxicity of molluscs and the occasional justification of the inedibility has been expressed in terms of size. Some species, it had been asserted, are not eaten simply because they are too small * [825] to bother. Only *Cardium consors*, as one of the informants suggested, is venomous, but even this, to him, seemed uncertain and dubious for he said "maybe it is venomous."

Other Uses

301 a) *Decoration*: A considerable number of shells were reported as used for decoration. The tabu* 825 lation indicated altogether 10 species that had been or still are used for ornament. Three of these are discarded now, seven still in use. This is mostly in the form of various sorts of necklaces, which the women string on ordinary thread. *Solenosatira pallida* is supposed to be worn as such by women and children, while *Cerithium stercusmuscarum* by the boys only. But I have never seen either of them make use of it in any way. On the other hand, *Trivia radiana* and the *Olive shell* are much

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9:Malkin E-5 (1953-1968)1962 NU31 Seri NU31

XI

SUMMARY

224 Hunting is very decidedly secondary to fishing, although it is still much practiced by certain individuals and in a desultory way probably by all.

462 There is a clean cut division of labor in all these occupations. Fishing and hunting are men's occupations, gathering of the desert animals and beachcombing for the intertidal animals is largely the job of women and children. Boys get broken [868] into men's occupations in adolescence, girls into women's jobs very much earlier.

224 Avoidance of fishing or hunting certain creatures appears much more a matter of custom than of well defined and socially rationalized attitude. Frequently an animal is not hunted simply because the Seri feel it is too big and too strong for them to tackle.

157 Through all these activities, Seri individualism is curiously woven and accounts for the failure of anything that might resemble a collective effort.

Food Preferences and Preparation

252 Seri food is prepared in a simplest sort of way. [263] Boiling in water is usual with salt and sometimes a few other spices added. While most food is prepared that way, snakes and fishes are usually fried, without any ingredients. There has been a [178] notable shift toward greater fanciness in the ingredients, as they have become more readily available.

262 There are many preferences. Animals are scaled in desirability. Some fishes, marine turtles, chuckawalla, deer and peccary and duck are at the top of the list; lower animals, smaller fishes including puerco in the middle, while the sea gull and the pelican are probably at the very bottom of the pit. This again reflects temporal changes in tastes [178] although not necessarily a direct influence from the Mexicans.

Pets

231 Few pets are kept, other than dogs. Such animals as come are those captured accidentally. In most cases they are bird nestlings.

Taxonomy

825 Differential criteria are applied in the classification of different groups. There is less tendency to group birds than to group different mammals and classificatory ideas break down almost completely in smaller animals, especially insects and molluscs. Considering the economic importance of the molluscs, poor ability to distinguish the Gastropods from the Pelecypods is striking.

The classificatory criteria differ for different groups. Mammals are generally recognized by the furiness, birds by the ability to fly and the pres-

[P.54 B]

261 will exist on very small rations, bear burdens, and walk long dis-
262 tances. Their food is anything that walks, flies, crawls or swims,
[252] and they eat it raw with the same relish that we eat it cooked. There is but one thing they will not eat; they draw the line on the Gila monster. They are the most perfect type of human being adapted to desert conditions that exists today. Convey them blindfolded many miles into the heart of the desert, empty-handed, remove their blinders, and they will find both food and water where others would perish. The Papagos and Yaquis do almost as well."

302 We gave the women a small bag of flour and three or four cubes of
[123] sugar around, and the men three packets of tobacco each and two boxes of matches. Matches with them are very precious and are rarely used. Rather than use a match a woman came over to our fire and borrowed some coals to rebuild her fire. From this point the nearest matches are a good deal over one hundred and twenty miles distant, so they have to economize in every thing.

422 Each rag is valuable, and flour, sugar, coffee and rifle shells
[436] are absolutely priceless. While they know money, it has no value here.
[437] Only commodities go here. The most highly prized things are boards to
[389] make boats and rifle shells to get game and protect themselves. All empty shells are saved, the primer punched out, straightened, a match head put in, a little pinch of powder on top, the shell filled up, a long bullet inserted, the shell pinched tight, and a fresh set of ammunition is made.

142 The women and children certainly did look wild. Their hair was
291 frowsy and unkempt, their skirts and waists a patchwork of dirty rags
302 coming just below the knees; their features seamed and hard and cruel. Their complexion was very dark. They had no under garments. The children wore only a dirty shirt coming a little below their thighs, and even that is ragged. One or two of the women had a dirty bandanna over their heads. How I wished I could have seen them in their ancient, picturesque pelican-skin kilts!

302 I happened to witness the operation of a Seri beauty parlor. A
[029] mother brushed the hair of her thirteen-year-old daughter with a brush
[293] made from the fibrous roots of a certain grass tied together with
[515] sinew. During the operation if she came across a *piojo*, and she found several, she plucked him away from his feeding ground and dropped him in the fire.

The hair neatly brushed, the mother then mixed paint in a small vessel and with a tiny stick painted a bright blue design under the eyes and across the cheeks and nose, and then she added narrow white stripes, which, contrasting with the blue and the dark skin, produced a very striking effect. This paint is easily removed and the women often paint and remove three different face designs in one day.

304 I did not see tattoo work on either men or women, nor did they
301 wear ceremonial feathers as did our western Indians.

157 The women are virtuous and faithful and perform all the duties of
152 wife and mother and bear their share of hardships. The hard life,
[145] exposure and struggle for existence soon causes hard features, wrinkles
[165] and ugliness. Many babies die young and the tribe probably numbers
[167] only about two hundred.

123 The dancing by the driftwood fires continued as we turned in to rest, our eyes constantly drawn to the flame and the glittering eyes in the wild dark faces, while the waves of the sea accompanied the chanting in that mysterious isle of Seriland.

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Seris - off to the fishing grounds - December 1934. Alcatraz Island in distance.

222 In Seriland most of the food comes from the sea. During April and May, at the time of my first visit, a green grass growing on the sea bottom was detached and washed ashore. The women dragged it up on the bank near camp and spread it out to dry. Some of the stalks contained about seven fine green seeds the size of a pin head. When dry, the
[285] women threshed them out with sticks on a piece of canvas. These are cleaned by the deft use of the *batea*, or winnowing basket, of which these people are past masters.

• 252 A pint of these fine seeds were parched in an olla over coals of
262 driftwood and constantly stirred to prevent burning. It was then ground on a flat rock like a *metate*---any flat rock---into a green meal which was very nourishing. This was cooked in an olla with turtle oil, making a porridge like thick green paint. It was then drunk or eaten with the fingers. If there is plenty, two fingers are used; if not, only one finger.

123 the flesh attached. This we roasted, or broiled, by standing it on
262 edge against two stakes in front of the fire. The breast was white and tender, somewhat like roast pig, but much more delicious.

262 The Seris cut off the great flippers, dug out the entrails, and
• 252 whenever there was a crack in the crowd of men, women and children, there was a dog lapping the blood and chewing a shred of meat before being driven off. Men, women and children tore off pieces of the tender
[251] meat and ate it raw. The blood which gathered in the hollow of the shell was baled out and saved in an olla.

A woman took out the coils of entrails, ripped them open with her finger, squeezed out the half-digested sea grass, which resembled closely-packed boiled greens, and rinsed them in the sea. The head
[251] was skillfully disjointed, and with flippers, entrails and liver, put up on the brush roof away from the sand and dogs.

Then began the feast; half the turtle being devoured immediately.
[264] To see Blanco, which name fits neither his complexion or character, gnaw the bone and tear away the raw flesh of a turtle flipper with his strong white teeth and cruel mouth, would not require much imagination to substitute the shin bone of a human being.

All parts of the sea turtle are utilized except the bones and portions of the head. The white, flexible under-shell is roasted and eaten, but how they can masticate and digest it is a mystery. I tried it and gave it up, as did all our party. It might have been a Goodyear tire, for all the impression we made on it, but even the Seri children
237 eat it. The carapace is broken into small pieces and dried out in an olla, and this yields a green oil. The shell is nearly one-half inch thick and filled with minute cells which carry oil. This oil is evidently a provision of nature to prevent barnacles and marine growths from attaching to the shell. This oil is poured into a previously cleaned section of intestine, fastened at one end, and then is bottled, ready for transportation or use.

The skin of the flippers is used for sandals. The broken pieces of carapace are also used for firing ollas. The shells are used for windbreaks, for receptacles for transporting household things on women's heads, and possibly for other needs. The stomachs are stretched, probably with sand, and when dried are used for transporting water, the same as we use a canteen.

185 The Seris are always improvident. They raise no cattle. They plant
261 nothing and the only crops they raise are children and dogs. They
[291] store no food away, eat when there is plenty, go hungry when there is
[231] nothing to eat. When they will eat raw turtle meat like animals, their
[262] taste is not refined. This is evidenced when they will eat a horse or burro dead, several days---scrape off the maggots to get a chance at it.

439 little gods I traded some muslin, a harmonica and some *panoche*. For
123 native hair brushes, I traded three fine-tooth combs for catching *piojos*, or lice, easier. I gave each woman a little round mirror and they were greatly pleased.

To the old Chief I presented a good pocket knife and a mirror. For the bow I traded a spark lighter. By striking the edge of a small wheel with milled edge it strikes a spark from a small flint and lights a wick.

123 We asked for a dance, and the Seris, using the bow and striking
635 sticks for music, the slender girl jumped up and down on a flat piece
[534] of tin which served, instead, of a turtle shell and also served for
[352] baking flour cakes upon also. A while before, Louis had seen a woman
[415] wash her head and that of a child in the chamber pot, empty the water and then cook in it.

After the girl had danced a while on the tin, old Manual Encina pushed her away and hopped on himself and did the double-shuffle for half an hour, after which we left for our camp.

197 The language of the Seris is the most difficult and peculiar I
194 have ever heard. It is spoken deep in the throat with the mouth open and sounds like no other language I have ever heard except that there are some sounds like Papago.

439 Even before breakfast of the next day we were still trading with
123 the Indians, and in an hour or so I possessed nearly everything they had except their rags. They seemed happy and contented and postponed their trip to Hermosillo. I left some stuff with Louis Thomson to be traded later for bows and arrows, Pelican skin dresses and baby cradles.

We then arranged our loads, said *Adios* to the Seris, and left for Hermosillo, where we arrived without accident about six-thirty p.m. The sun was very hot and the road heavy and the sun glaring, and we were all very tired when we reached town. I stored my stuff with Mr. Marks at Hotel Cohen, and will crate it before leaving for Yaqui River.

123 Before leaving the Seri Chief I told him that whenever he saw
202 this sign---Circle Bar D and left hand below it, it was me---their friend, and not to shoot at me. He said he would tell all the Seris, and I left him my card with the same sign on it. When will I see him again!

10: Davis E-5 (1922-ca. 1939) 1965 NU31 Seri NU31

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Seri Indians at home

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Seri Indians preparing their meal

123 223 [262] birds. As soon as the skin was off the breast was laid on top of the coals and roasted. The meat was red as raw beef, but it was free of fishy flavor and tasted excellent. The Indians ate pelican flesh till daylight.

252 [123] We gave them a generous helping of flour in a pail and this with water from a canteen, Santo stirred vigorously with a stick and then kneaded the dough with his hands until it was of the right consistency. He rolled hunks of this into little balls of dough about the size of golf balls, which he laid on his blanket. The boys picked these up, patted them flat like pancakes, scraped away ashes and sand from the edge of the fire, placed their pancakes in the hollow, covered them with hot ashes and hot sand, and in about three minutes pulled them out all baked brown. They shook the ashes and sand from them, leaving them clean and ready to eat. I am telling this in detail to show how simple cooking can be done without a dutch-oven, frying pan, or cooking grease, far from civilization.

281 [123] We were soon paddled across to their village on the shores of Kino Bay and the skins turned over to Mrs. Santo. The skins had been split down the back, leaving the breast unmarred. The wings and legs had already been removed, and she sewed the skins together with sinew recovered from the birds. The boys had secured an extra pelican making six, three to a side, then placed together and sewed lengthwise, making a robe three and a half feet wide by seven feet long.

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Pegging out and drying a Pelican skin robe by a Seri Indian woman - 1936